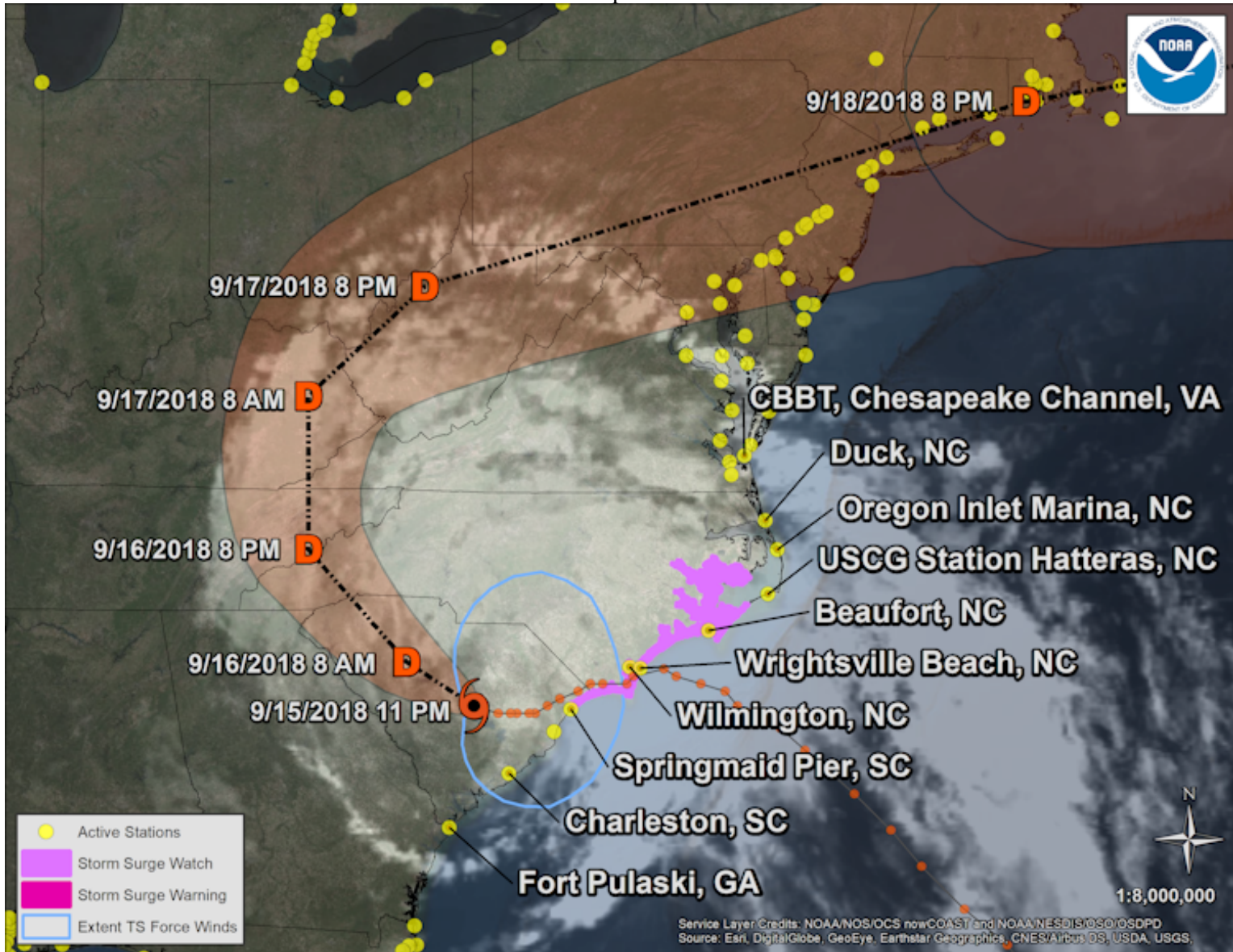




# Tropical Storm Florence QuickLook Posted: 00:00 EDT 09/16/2018

NOAA and NOAA Partnership Stations Relative to the Storm



## Storm Analysis

As of 09/16/2018 00:00 EDT, water levels along the North and South Carolina coast continue to be impacted by Florence. From Myrtle Beach, SC to the Chesapeake Bay entrance (including Pamlico Sound), water levels are between 1.0 and 3.1 feet above normal tide levels with the highest values being observed at Wilmington, NC. Water levels from Charleston, SC to Fort Pulaski, GA are running near normal tide levels.

Winds around the region range from 10-30 knots with the highest winds being recorded at Wrightsville Beach, NC with gusts near 40 knots. Barometric pressure is rising around the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: RCL

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Select National Hurricane Center Advisory:

Tropical Storm Florence Advisory Number 67  
NWS National Hurricane Center Miami FL  
1100 PM EDT Sat Sep 15 2018

...HEAVY RAINBANDS CONTINUE TO DELUGE SOUTHEASTERN NORTH CAROLINA...  
...FLASH FLOODING AND MAJOR RIVER FLOODING OCCURRING OVER A  
SIGNIFICANT PORTION OF THE CAROLINAS...

SUMMARY OF 1100 PM EDT...0300 UTC...INFORMATION

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LOCATION...33.7N 80.5W  
ABOUT 55 MI...90 KM SW OF FLORENCE SOUTH CAROLINA  
ABOUT 40 MI...65 KM ESE OF COLUMBIA SOUTH CAROLINA  
MAXIMUM SUSTAINED WINDS...40 MPH...65 KM/H  
PRESENT MOVEMENT...W OR 275 DEGREES AT 3 MPH...6 KM/H  
MINIMUM CENTRAL PRESSURE...998 MB...29.47 INCHES

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

None.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...  
\* South Santee River South Carolina to Surf City North Carolina

Interests elsewhere in the southeastern and mid-Atlantic states should monitor the progress of Florence due to the heavy rainfall threat.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

## DISCUSSION AND OUTLOOK

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At 1100 PM EDT (0300 UTC), the center of Tropical Storm Florence was located near latitude 33.7 North, longitude 80.5 West. Florence is moving toward the west near 3 mph (6 km/h). A turn toward the northwest with an increase in forward speed is expected on Sunday, followed by a turn toward the north and northeast with an additional increase in forward speed on Monday. On the forecast track, Florence's center will move across the western Carolinas on Sunday and then recurve over the Ohio Valley and Northeast U.S. Monday and Tuesday.

Maximum sustained winds have decreased to near 40 mph (65 km/h) with higher gusts. Additional weakening is forecast while the center moves farther inland, and Florence is expected to become a tropical depression early Sunday.

Tropical-storm-force winds extend outward up to 160 miles (260 km) to the east of the center near the coast and over water. Within the past hour or so, a sustained wind of 39 mph (63 km/h) with a gust to 51 mph (82 km/h) was reported at the Johnny Mercer Pier in Wrightsville Beach, North Carolina. A wind gust to 49 mph (79 km/h) was recently reported near Chester, South Carolina.

The estimated minimum central pressure based on nearby surface observations is 998 mb (29.47 inches).

## HAZARDS AFFECTING LAND

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RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas...

Southern and western North Carolina...an additional 10 to 15 inches, with storm total accumulations up to 20 inches in western North Carolina and up to 40 inches in southeast North Carolina. This rainfall will produce catastrophic flash flooding and prolonged significant river flooding, with an elevated risk for landslides in western North Carolina.

Northern South Carolina and southwestern Virginia...5 to 10 inches, isolated 15 inches.

West-central Virginia into far eastern West Virginia, north of Roanoke and west of Charlottesville, 3 to 6 inches, isolated 8 inches. These rainfall amounts will result in life-threatening

flash flooding and river flooding, along with an elevated risk for landslides.

**STORM SURGE:** Water levels along the coast of North and South Carolina are gradually receding. Some minor coastal flooding is still possible through Sunday. For information specific to your area, please see products issued by your local National Weather Service forecast office.

**WIND:** Tropical storm conditions will continue overnight in portions of the warning area along the coast and also over large portions of eastern North Carolina and extreme eastern South Carolina, with tropical-storm-force wind gusts spreading well inland.

**TORNADOES:** A couple of tornadoes remain possible across North Carolina and northeastern South Carolina through Sunday.

**SURF:** Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

#### NEXT ADVISORY

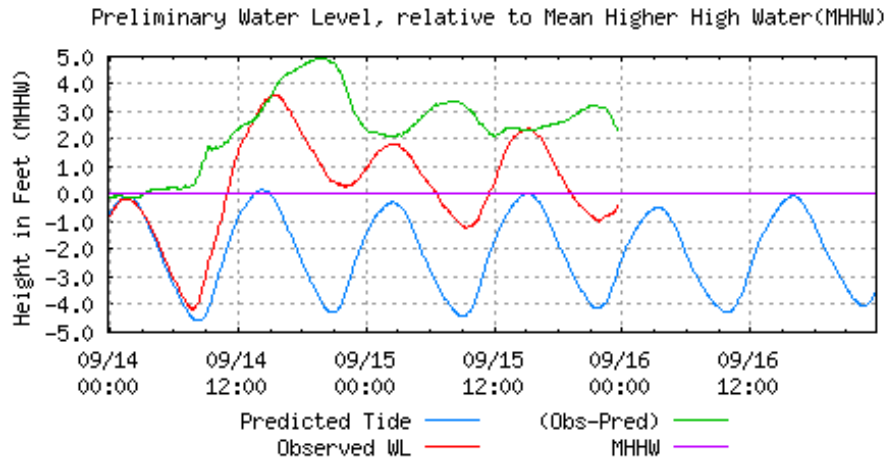
-----  
Next intermediate advisory at 200 AM EDT.  
Next complete advisory at 500 AM EDT.

Forecaster Berg

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Wilmington - Water Level](#), [Wilmington - Barometric](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Beaufort, Duke Marine Lab - Water Level](#), [Beaufort, Duke Marine Lab - Winds](#), [Beaufort, Duke Marine Lab - Barometric](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [USCG Station Hatteras - Barometric](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Oregon Inlet Marina - Barometric](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#), [CBBT, Chesapeake Channel - Water Level](#), [CBBT, Chesapeake Channel - Winds](#), [CBBT, Chesapeake Channel - Barometric](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Barometric](#), [Charleston, Cooper River Entrance - Water Level](#), [Charleston, Cooper River Entrance - Winds](#), [Charleston, Cooper River Entrance - Barometric](#), [Fort Pulaski - Water Level](#), [Fort Pulaski - Winds](#), [Fort Pulaski - Barometric](#)

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



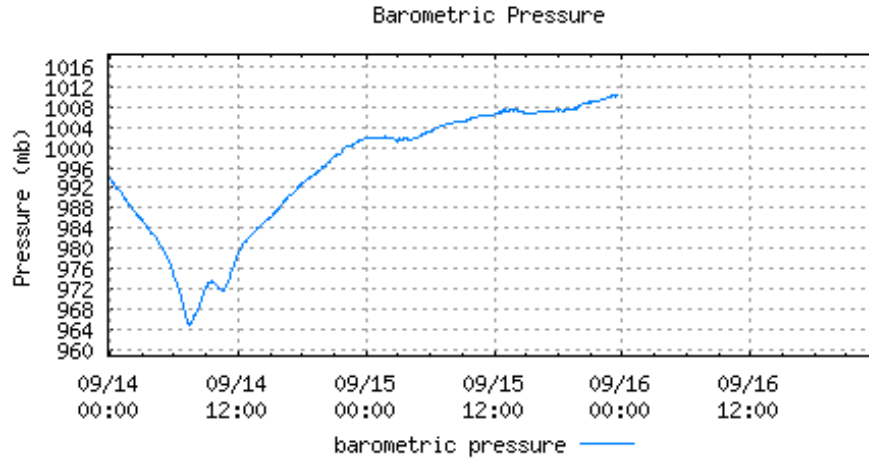
Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

Observed: -0.44 ft. Predicted: -2.77 ft. Residual: 2.33 ft.

Historical Maximum Water Level: Oct 8 2016, 3.48 ft.

Next High Tide: 09/16/2018 03:22 (EDT), -0.46 ft.

NOAA/NOS/CO-OPS 8658120 Wilmington, NC

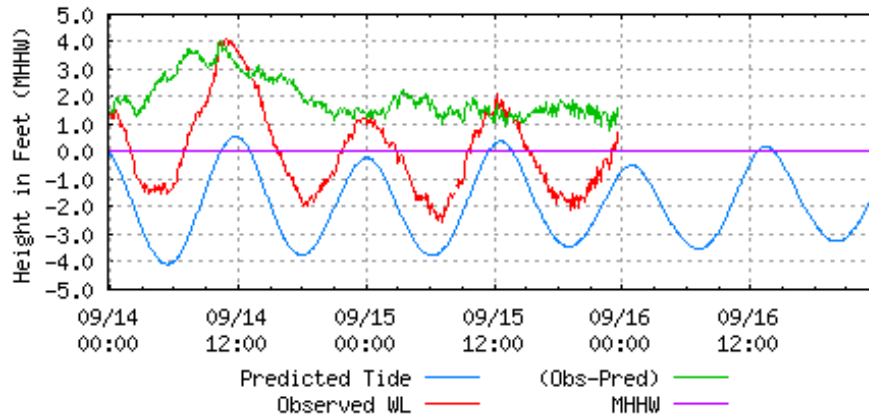


Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1010.2 mb

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

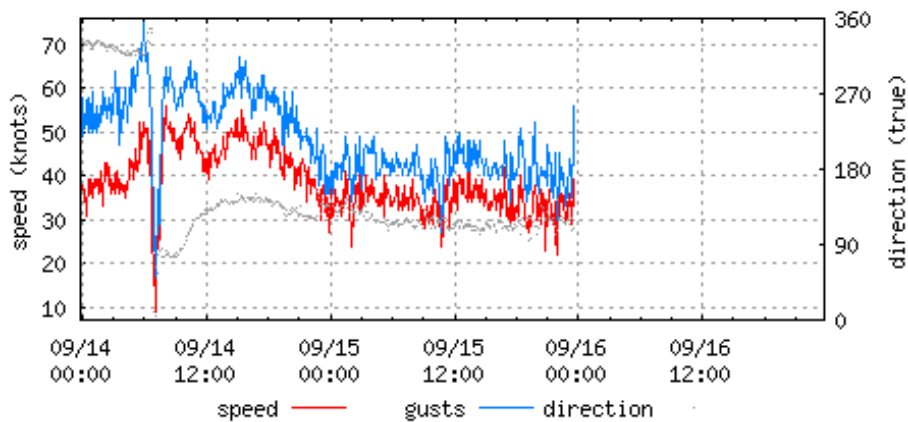
Observed: 0.72 ft. Predicted: -0.88 ft. Residual: 1.60 ft.

Historical Maximum Water Level: Oct 4 2015, 2.97 ft.

Next High Tide: 09/16/2018 00:53 (EDT), -0.49 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

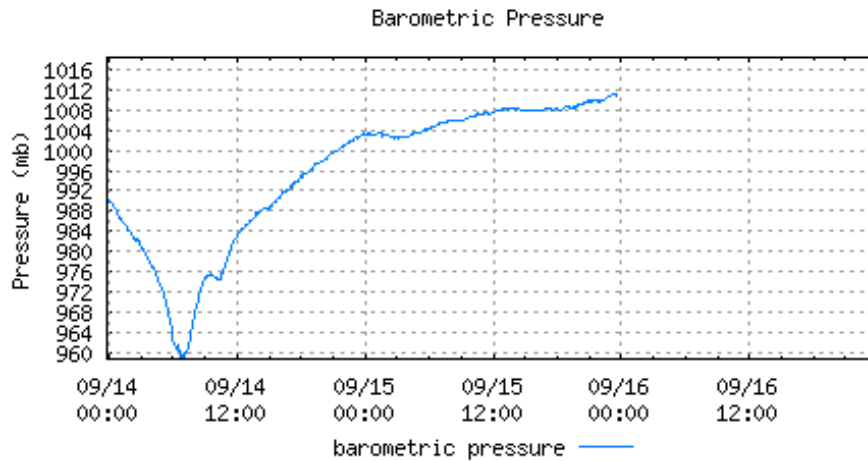
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 23:36 (EDT)

Wind Speed: 33 knots Gusts: 56 knots Direction: 110° T

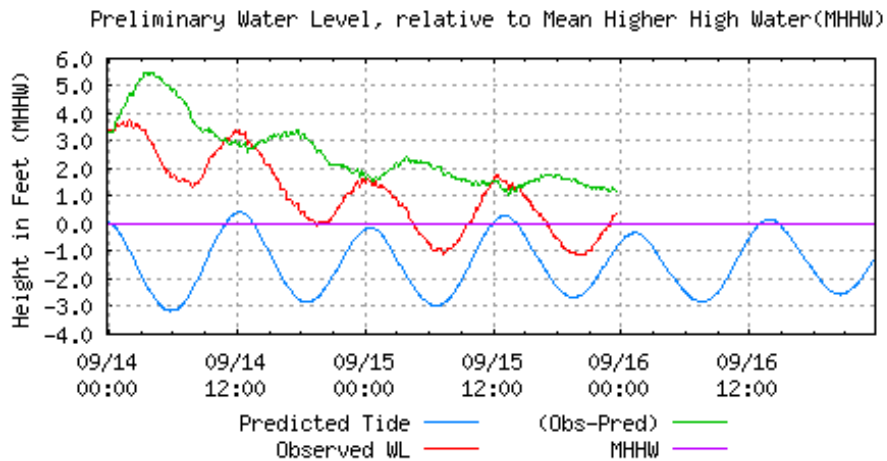
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1011.2 mb

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



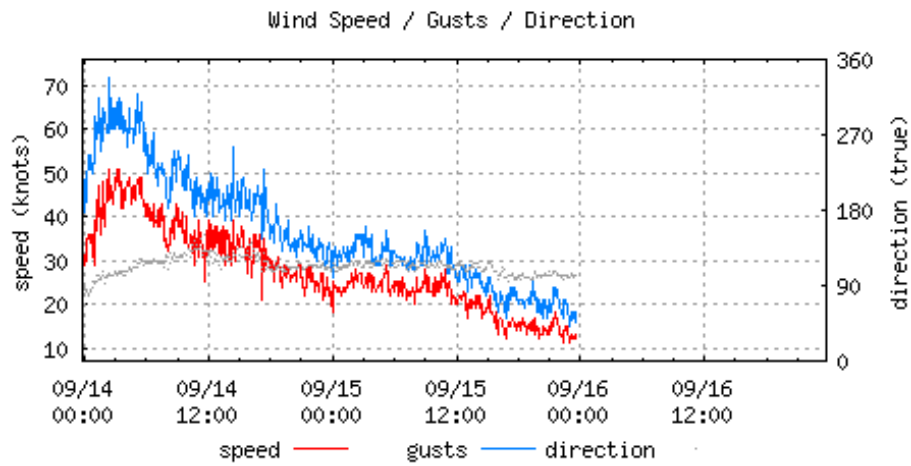
Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

Observed: 0.39 ft. Predicted: -0.83 ft. Residual: 1.22 ft.

Historical Maximum Water Level: Sep 19 1955, 3.39 ft.

Next High Tide: 09/16/2018 01:18 (EDT), -0.32 ft.

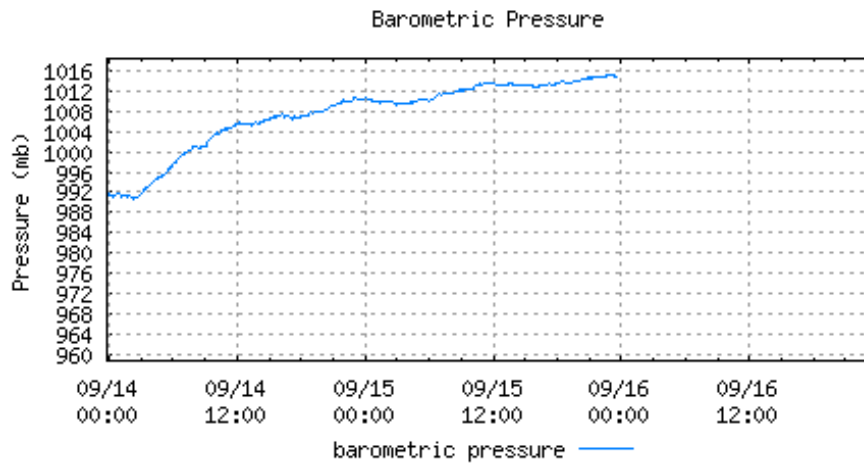
NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



Last Observed Sample: 09/15/2018 23:36 (EDT)

Wind Speed: 12 knots Gusts: 18 knots Direction: 101° T

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



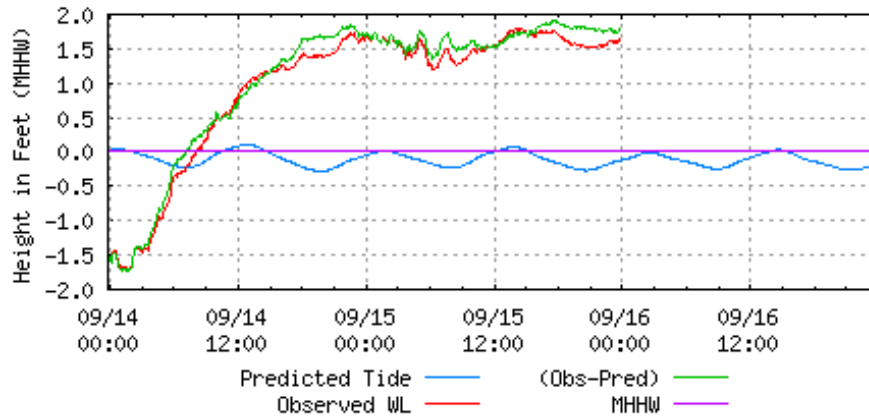
Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1014.9 mb



NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/15/2018 23:48 (EDT). Data relative to MHHW

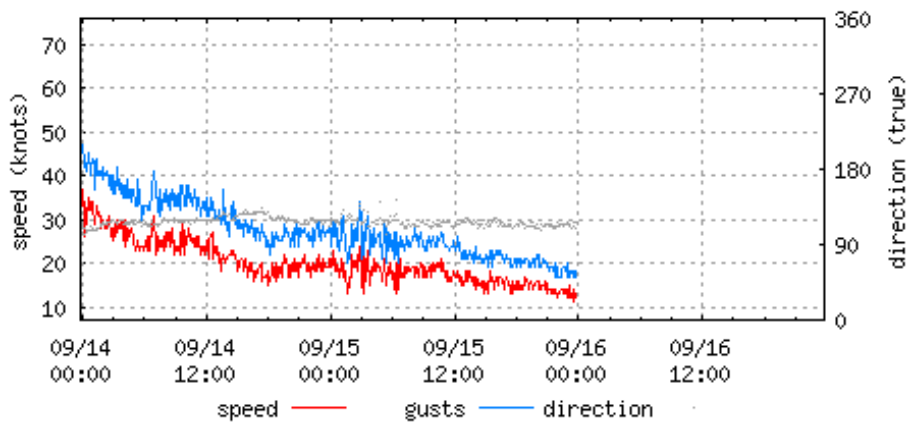
Observed: 1.66 ft. Predicted: -0.12 ft. Residual: 1.78 ft.

Historical Maximum Water Level: Oct 9 2016, 5.76 ft.

Next High Tide: 09/16/2018 02:33 (EDT), -0.01 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

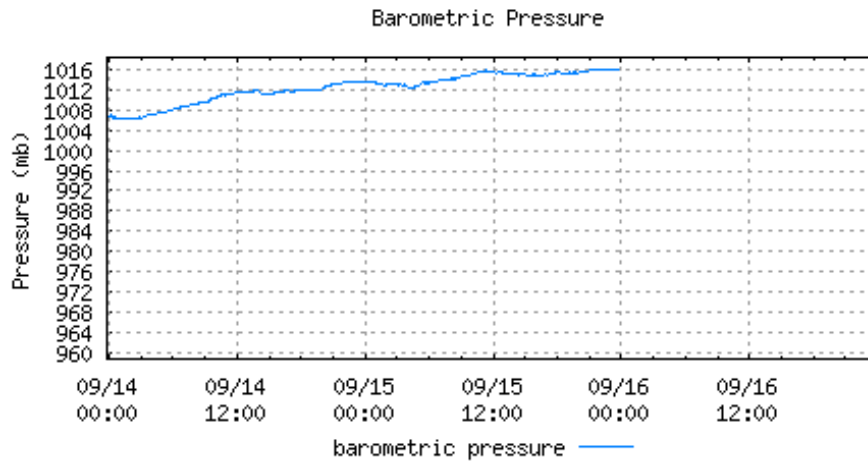
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 23:48 (EDT)

Wind Speed: 12 knots Gusts: 17 knots Direction: 110° T

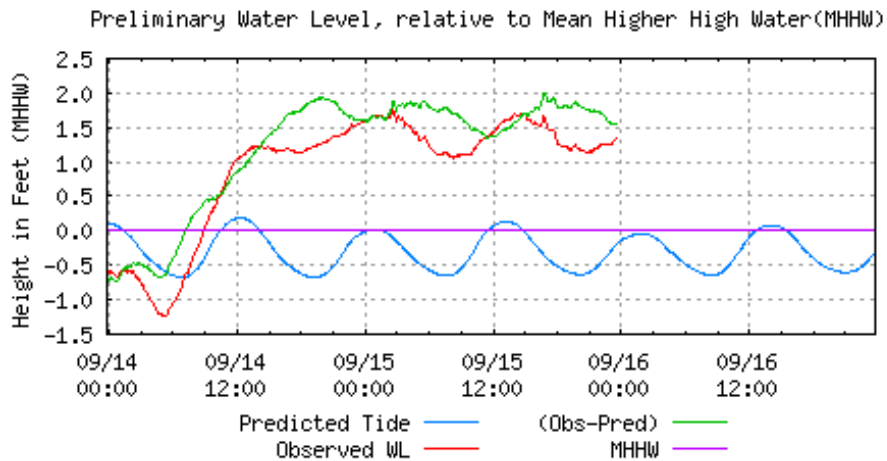
NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 09/15/2018 23:48 (EDT)

Barometric Pressure: 1016.1 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



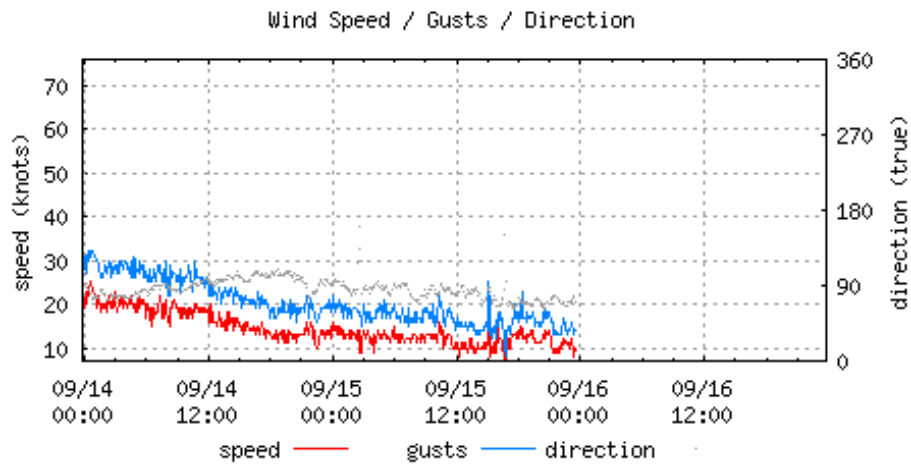
Last Observed Sample: 09/15/2018 23:30 (EDT). Data relative to MHHW

Observed: 1.35 ft. Predicted: -0.20 ft. Residual: 1.55 ft.

Historical Maximum Water Level: Aug 28 2011, 6.31 ft.

Next High Tide: 09/16/2018 01:57 (EDT), -0.05 ft.

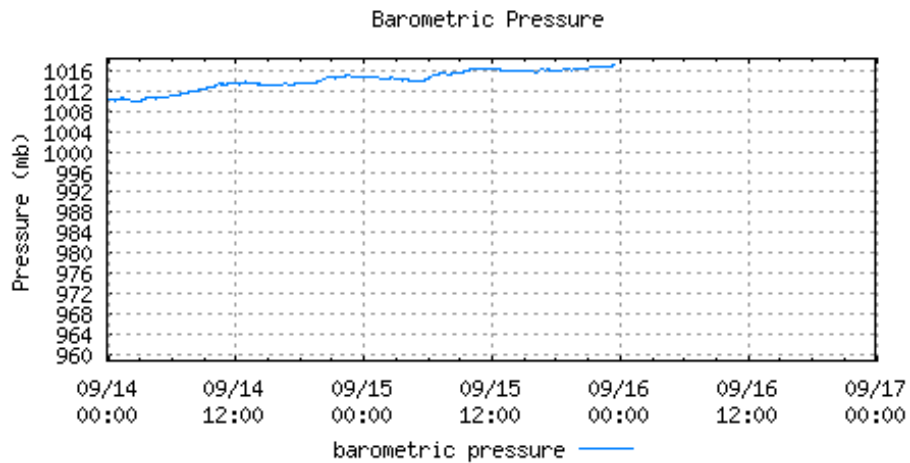
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 23:30 (EDT)

Wind Speed: 10 knots Gusts: 14 knots Direction: 70° T

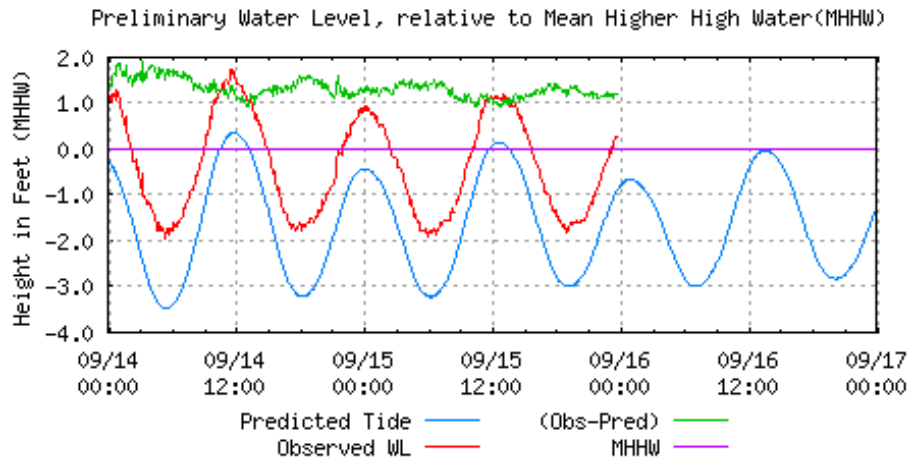
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 23:30 (EDT)

Barometric Pressure: 1017.0 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



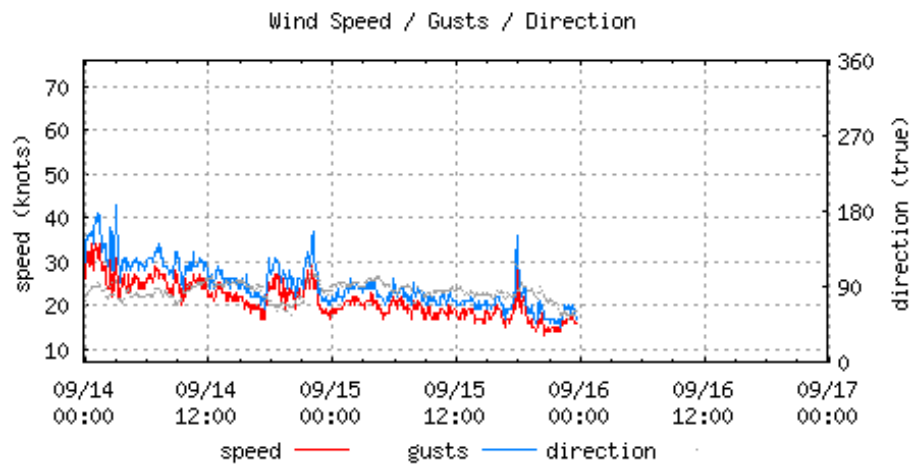
Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

Observed: 0.27 ft. Predicted: -0.91 ft. Residual: 1.18 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 09/16/2018 00:50 (EDT), -0.67 ft.

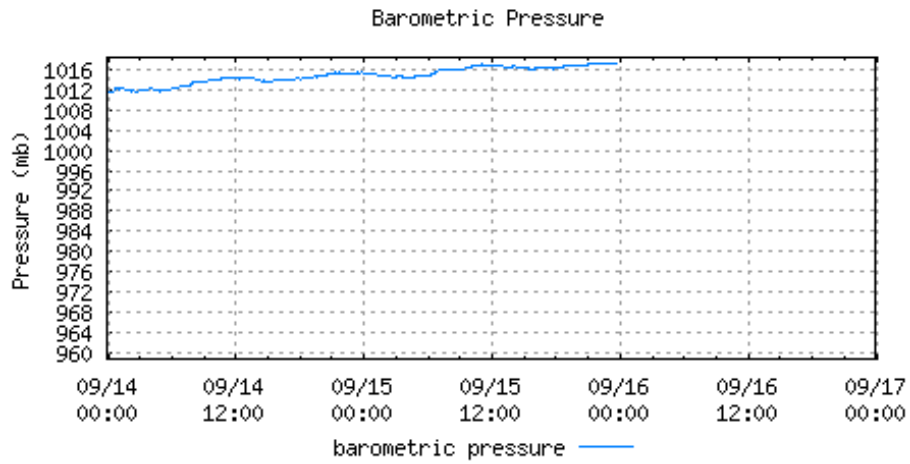
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 23:36 (EDT)

Wind Speed: 16 knots Gusts: 17 knots Direction: 61° T

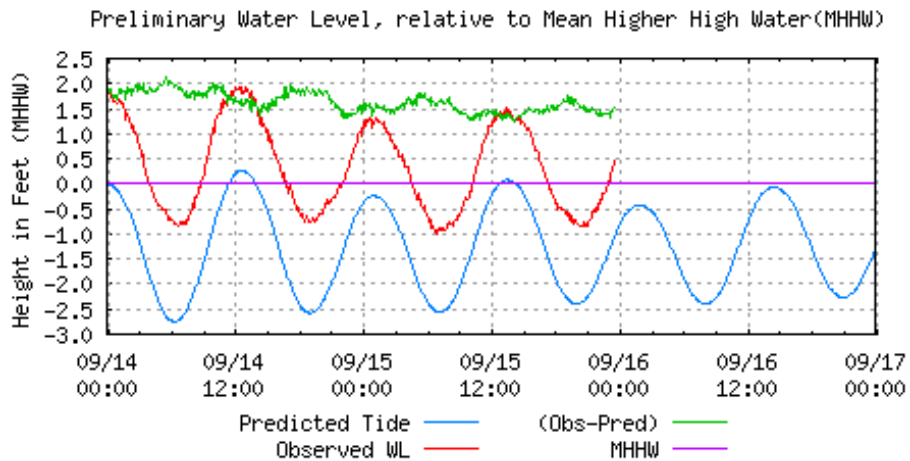
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1017.3 mb

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



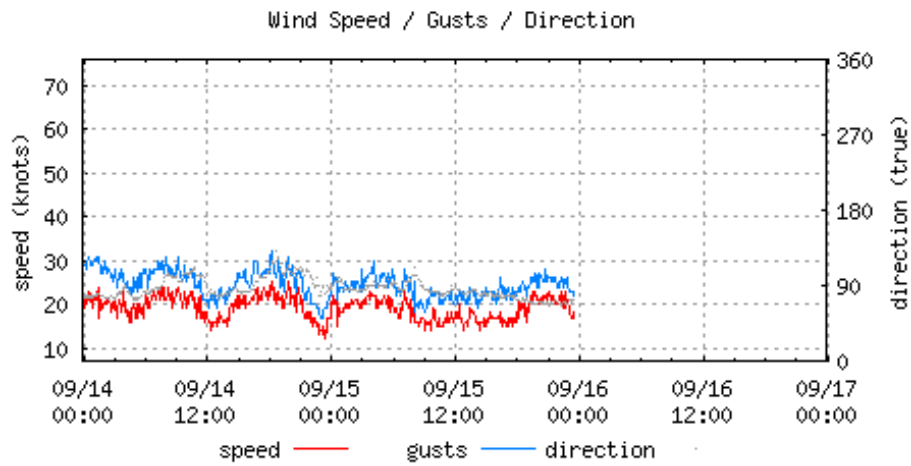
Last Observed Sample: 09/15/2018 23:30 (EDT). Data relative to MHHW

Observed: 0.48 ft. Predicted: -1.04 ft. Residual: 1.52 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/16/2018 01:47 (EDT), -0.42 ft.

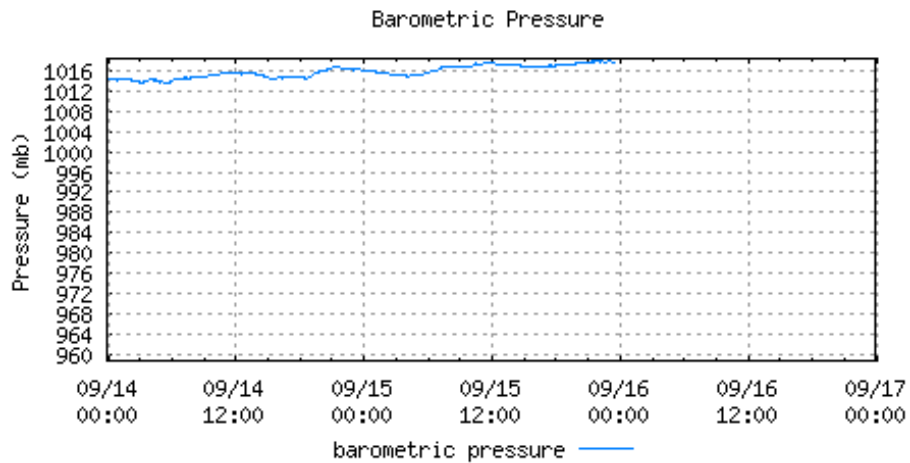
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/15/2018 23:30 (EDT)

Wind Speed: 18 knots Gusts: 23 knots Direction: 74° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

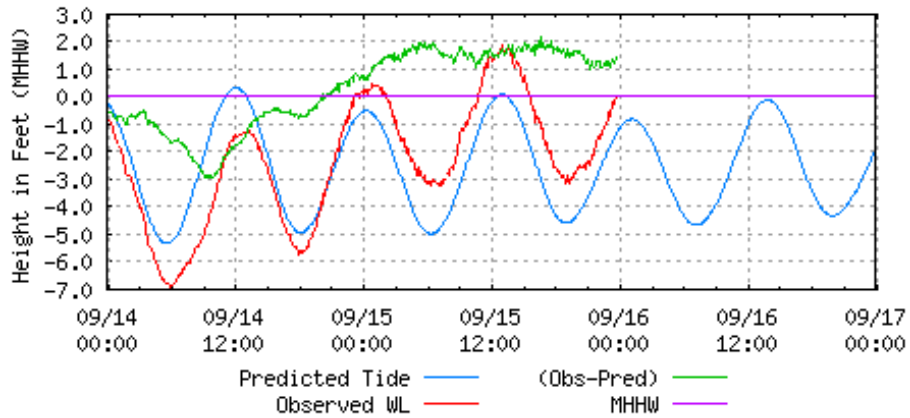


Last Observed Sample: 09/15/2018 23:30 (EDT)

Barometric Pressure: 1017.6 mb

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

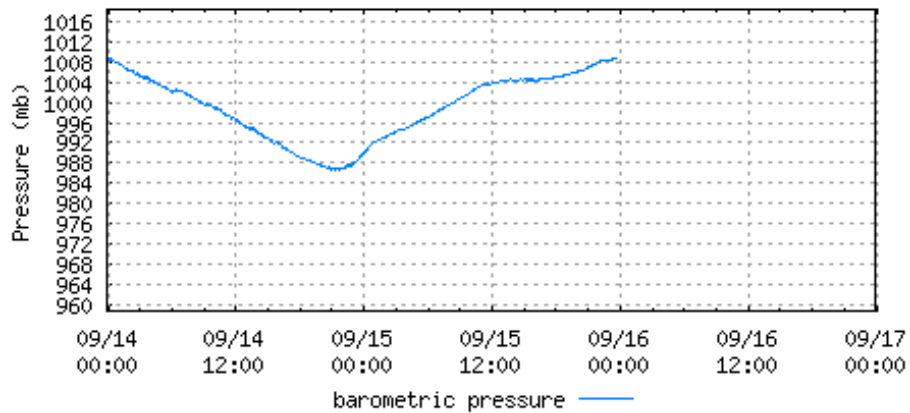
Observed: 0.05 ft. Predicted: -1.37 ft. Residual: 1.42 ft.

Historical Maximum Water Level: Sep 21 1989, 8.77 ft.

Next High Tide: 09/16/2018 01:07 (EDT), -0.81 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

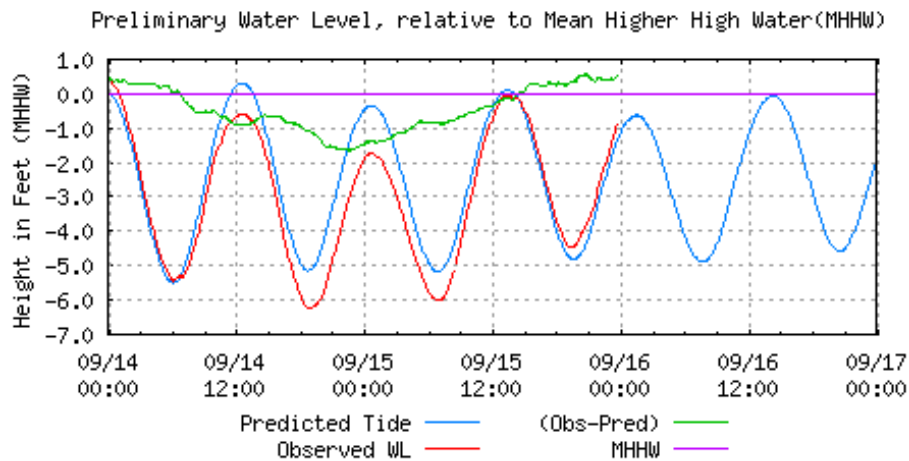
Barometric Pressure



Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1008.8 mb

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



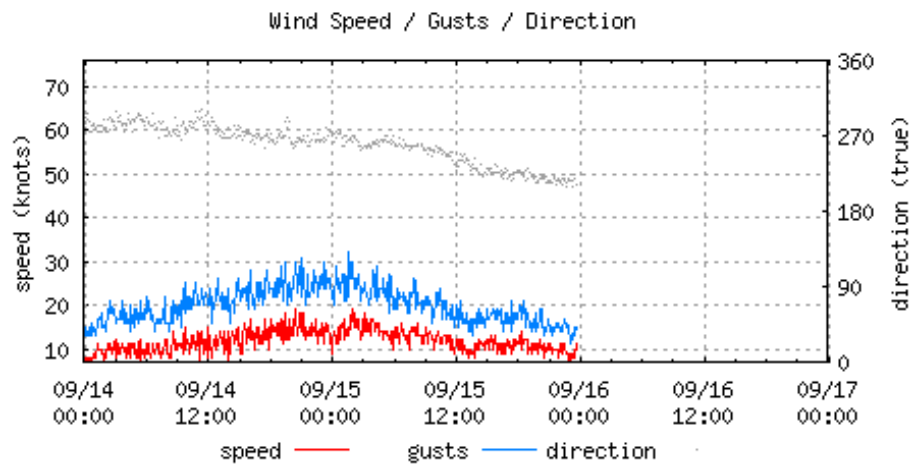
Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

Observed: -0.88 ft. Predicted: -1.39 ft. Residual: 0.51 ft.

Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 09/16/2018 01:25 (EDT), -0.63 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC

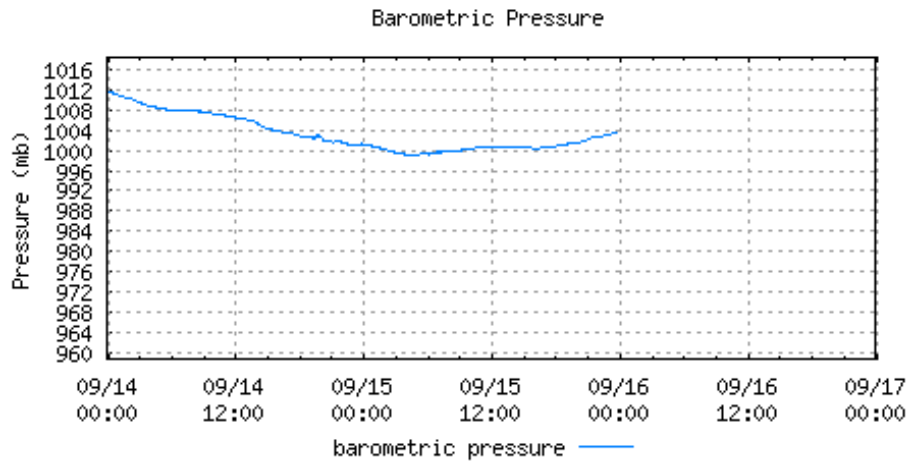


Last Observed Sample: 09/15/2018 23:36 (EDT)

Wind Speed: 11 knots Gusts: 15 knots Direction: 211° T



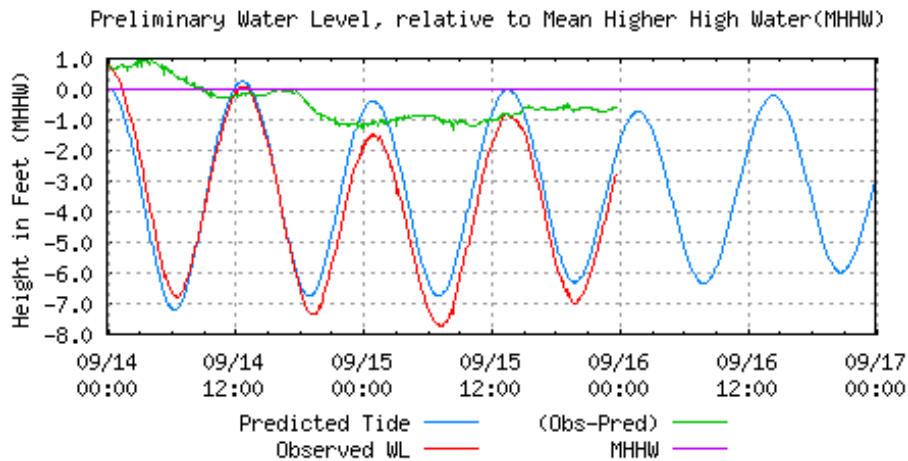
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1003.5 mb

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



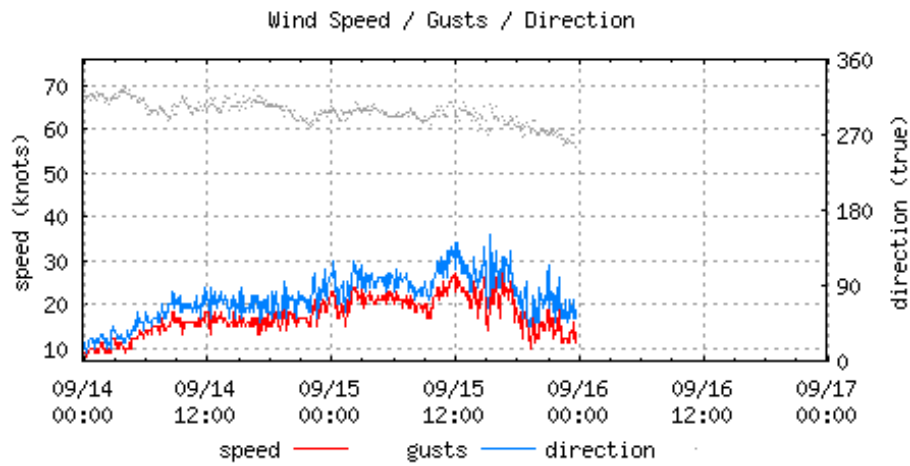
Last Observed Sample: 09/15/2018 23:36 (EDT). Data relative to MHHW

Observed: -2.79 ft. Predicted: -2.17 ft. Residual: -0.62 ft.

Historical Maximum Water Level: Oct 8 2016, 4.94 ft.

Next High Tide: 09/16/2018 01:40 (EDT), -0.72 ft.

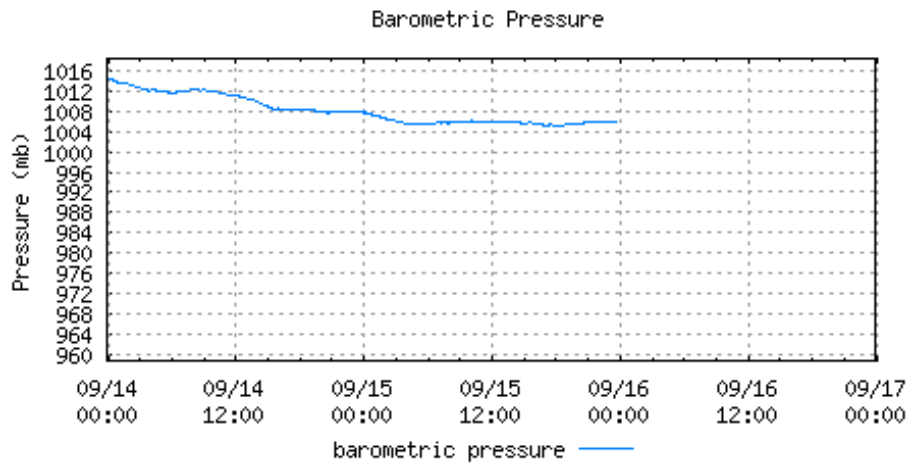
NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 23:36 (EDT)

Wind Speed: 11 knots Gusts: 17 knots Direction: 256° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 23:36 (EDT)

Barometric Pressure: 1006.0 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658120	Wilmington, NC	09/15/2018 23:36 (EDT)	-0.44 ft	-2.77 ft	2.33 ft	2.40 ft
8658163	Wrightsville Beach, NC	09/15/2018 23:36 (EDT)	0.72 ft	-0.88 ft	1.60 ft	2.09 ft
8656483	Beaufort, Duke Marine Lab, NC	09/15/2018 23:36 (EDT)	0.39 ft	-0.83 ft	1.22 ft	1.77 ft
8654467	USCG Station Hatteras, NC	09/15/2018 23:48 (EDT)	1.66 ft	-0.12 ft	1.78 ft	1.80 ft
8652587	Oregon Inlet Marina, NC	09/15/2018 23:30 (EDT)	1.35 ft	-0.20 ft	1.55 ft	1.78 ft
8651370	Duck, NC	09/15/2018 23:36 (EDT)	0.27 ft	-0.91 ft	1.18 ft	1.20 ft
8638901	CBBT, Chesapeake Channel, VA	09/15/2018 23:30 (EDT)	0.48 ft	-1.04 ft	1.52 ft	1.51 ft
8661070	Springmaid Pier, SC	09/15/2018 23:36 (EDT)	0.05 ft	-1.37 ft	1.42 ft	1.88 ft
8665530	Charleston, Cooper River Entrance, SC	09/15/2018 23:36 (EDT)	-0.88 ft	-1.39 ft	0.51 ft	-0.02 ft
8670870	Fort Pulaski, GA	09/15/2018 23:36 (EDT)	-2.79 ft	-2.17 ft	-0.62 ft	-0.82 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)  
National Oceanic and Atmospheric Administration | U.S. Department of Commerce